

REMARKS

Applicants acknowledge receipt of the Examiner's Office Action dated January 15, 2008.

Claims 13-19 and 27-29 are pending in the application.

Claims 13-19 and 27-29 stand rejected.

Claims 13, 18, 27 and 29 have been amended.

*Rejection of Claims Under 35 U.S.C. § 112*

Claims 13-19 and 27-29 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

In general, a claim is considered to be definite, as required by the second paragraph of 35 U.S.C. § 112, when the claim defines the metes and bounds of a claimed invention with a reasonable degree of precision and particularity. See *In re Venezia*, 530 F.2d 956, 958, 189 USPQ 149, 151 (CCPA 1976). Applicants respectfully submit that the scope of claims 13, 17 and 27 can readily be ascertained, and thus use of the phrase "a predetermined number of contiguous frames that may be transmitted over said link" is proper and does not render the claim indefinite.

Applicants respectfully submit that the need posited in the Office Action, for the direction in which frames are transmitted, does not exist. One of skill in the art would not need to know the direction, because the claimed table comprises an entry indicating a predetermined number of contiguous frames that may be transmitted over the link.

Support for the position that “a predetermined number of contiguous frames that may be transmitted over said link” is definite can be found at least at p. 20, ll. 4-15, of the Specification. As noted in the Specification:

“Additional words containing circuit information such as other information about a link coupling two circuit switches can be appended on packet 800. Of course, some of the fields of packet 800 shown in FIG. 8 can be omitted to suit specific applications.” (Specification, p. 20, ll. 16-21)

Accordingly, the applicant respectfully submits that claims 13-19 and 27-29 are definite and allowable.

*Claim Objections*

Claims 13, 17, and 27 are objected to as containing informalities. Applicants respectfully submit that the Office Action improperly takes the word “function” out of context. The word “function” is not used in a vacuum. The phrase in which it is used reads: “function of said link” – and not simply “function”. The term “function of said link” is defined in several places in the Specification, among them p. 18, line 23, through p. 20, line 21, of the Specification. When the objected-to word is read in context and in light of the Specification, it is neither vague nor indefinite. Accordingly, the applicant respectfully submits that claims 13, 17, and 27 are definite and allowable.

*Rejection of Claims Under 35 U.S.C. § 103*

Claims 13-14, 16-17, and 27-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki et al., U.S. Patent No. 5,796,736 (“Suzuki”) in view of Nishimura et al., U.S. Patent No. 5,235,599 (“Nishimura”).

While not conceding that the cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that the cited references, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

In order for a claim to be rendered invalid under 35 U.S.C. § 103, the subject matter of the claim as a whole would have to be obvious to a person of ordinary skill in the art at the time the invention was made. *See* 35 U.S.C. § 103(a). This requires: (1) the references must teach or suggest all of the claim limitations; (2) there must be some teaching, suggestion or motivation to combine references either in the references themselves or in the knowledge of the art; and (3) there must be a reasonable expectation of success. *See* MPEP 2143; MPEP 2143.03; *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998).

Applicants respectfully submit independent claims 13, 17 and 27 are allowable over Suzuki, even in view of Nishimura, taken alone or in any permissible combination.

Claim 17 reads as follows:

17. A network comprising:
- a first circuit switch having a first interface, the first interface having assigned thereto a first identifier;
  - a second circuit switch having a second interface, the second interface having assigned thereto a second identifier;
  - a plurality of memory locations in said first circuit switch containing a first table, the first table including each of said first identifier and said second identifier;
  - a plurality of memory locations in said second circuit switch containing a second table, said second table including each of said first identifier and said second identifier; and
  - a link coupling said first interface to said second interface, wherein said first table and said second table each comprise
    - an entry indicating a function of said link, and
    - an entry indicating a predetermined number of contiguous frames that may be transmitted over said link.

As will be appreciated from a careful review of the claims, Applicants respectfully submit claims 13 and 27 are directed to a method and computer program product, and while similar to claim 17, recite limitations that are not addressed in the Office Action.

To wit, claim 13 reads as follows:

13. A method for propagating information in a network comprising:  
automatically assigning an index number to an interface;  
automatically transmitting said index number using said interface; and  
automatically transmitting said index number using at least one additional  
interface, wherein  
said interface and said one additional interface are interfaces among a  
plurality of interfaces in a circuit switch,  
said interface is configured to be coupled to a link,  
said circuit switch is configured to store a table, and  
said table comprises  
an entry indicating a function of said link, and  
an entry indicating a predetermined number of contiguous frames  
that may be transmitted over said link.

Similarly, claim 27 reads as follows:

27. An article of manufacture comprising:  
a computer readable storage medium comprising a computer readable program code for propagating information in a network, said computer readable program code in said article of manufacture further comprising computer readable program code for automatically assigning an index number to an interface;  
computer readable program code for automatically transmitting said index number on said interface; and  
computer readable program code for automatically transmitting said index number on at least one additional interface, wherein said interface and said one additional interface are interfaces among a plurality of interfaces in a circuit switch, said interface is configured to be coupled to a link, said circuit switch is configured to store a table, and said table comprises  
an entry indicating a function of said link, and  
an entry indicating a predetermined number of contiguous frames that may be transmitted over said link.

With regard to claims 13 and 27, Applicants further respectfully submit that the particular parts of the cited references relied on by the Office Action have not been designated as nearly as practicable, and the pertinence of each reference has not been clearly explained, both as required by 37 C.F.R. § 1.104(c)(2). *See also* MPEP § 706.02(j).

Applicants respectfully submit that independent claims 13 and 27 are allowable over Suzuki, even in view of Nishimura, taken alone or in any permissible combination, for at least the reason that neither Suzuki nor Nishimura show, teach or suggest:

“... ”

automatically assigning an index number to an interface;  
automatically transmitting said index number using said interface; and  
automatically transmitting said index number using at least one additional  
interface, ... .”

It will be further appreciated that neither of the cited references would be expected to show, teach or suggest such automatic assigning and transmitting by the interfaces of a circuit switch because neither reference is directed to such technology, as a threshold question. Applicants therefore respectfully submit that the cited references fail to show, teach or suggest all the elements of at least claims 13 and 27.

Nevertheless, Applicants have made every effort to respond to the Office Action’s remaining rejections in a meaningful manner. With regard to claim 17, then, Applicants note that, in contrast to the claimed invention, Suzuki is directed to an ATM network topology auto-discovery method, and more specifically to:

“A network topology discovery method automatically recognizes the physical connection relationships of each ATM switch and each ATM terminal within an ATM network. Each ATM switch and ATM terminal mutually exchanges, by ILMI protocol, port identifiers that identify every ATM port of the ATM switch or ATM terminal as well as network addresses of network management agents that manage the ATM switch and the ATM terminal, to neighboring ATM switches and ATM terminals

that are directly connected to its ports. Each ATM switch and ATM terminal stores tables for each of its ATM ports that include port identifiers which indicate the identities of connected ports as well as the network addresses of the network management agents that manage the neighboring ATM switches and ATM terminals. The ATM switches or ATM terminals automatically recognize the local connection relationships with its neighboring ATM switches or ATM terminals, using a network management system, by accessing connection information and then automatically recognizing the physical connection relationships of each ATM switch and each ATM terminal. The network management system recognizes the configuration within an ATM network, whether the network management system is inside or outside the ATM network, including when a router or existing LAN coexists with the ATM network. The identities of ports connected to each port are recognized, when a plurality of links exist between ATM switches, without requiring the assignment of a respective one of its ATM network management agents to each ATM switch. Interfaces between ATM switches as well as between an ATM switch and an ATM terminal are also automatically identified.”  
(Suzuki; Abstract)



By further contrast, Nishimura is directed to a self-healing network with distributed failure restoration capabilities, and more specifically:

“In the event of a failure on a transmission line, a sender, or a terminal node of the failed line, broadcasts CONTROL packets to each of all adjacent tandem nodes, containing a hop count and node trace data. In response to a CONTROL packet, each tandem node increments the hop count of the packet, updates its node trace data, makes a record of all arriving CONTROL packets, and broadcasts copies of each arriving CONTROL packet to adjacent nodes if the hop count is smaller than a prescribed value. A chooser, which is the other terminal node of the failed line, responds to CONTROL packets from a given node for sending back to the given node as many RETURN packets as there are failed channels. Each tandem node makes a record of all arriving RETURN packets, checks the node trace data of each RETURN packet against that of the CONTROL packets in the record to detect if there is a spare channel to an adjacent node on a route to the sender with a least hop count, transmits each RETURN packet to it if a spare channel is detected, or causes retransmission of a RETURN packet from the chooser to another tandem node if no spare channel is detected. The sender responds to each RETURN packet by switching a link from a failed channel to a spare channel indicated by the packet. An END packet is sent back from the sender to each tandem node along which the RETURN packet travelled between the chooser to the sender. On reaching the chooser, the END

packet is used to switch a link from a failed channel to a spare channel indicated by the received END packet.” (Nishimura; Abstract)

For the reasons now presented, neither Suzuki nor Nishimura, taken alone or in permissible combination, teach the limitations of claim 17.

The Office Action correctly notes that, among other of Suzuki’s infirmities, Suzuki fails to show, teach or suggest:

“...  
said first table and said second table each comprise  
an entry indicating a function of said link, and  
an entry indicating a predetermined number of contiguous frames  
that may be transmitted over said link.”

The Office Action then resorts to Nishimura in an attempt to cure this infirmity. However, as did Suzuki, Nishimura fails in this regard. More specifically, the Office Action cites Fig. 19 of Nishimura as somehow teaching the claimed entries indicating a function of the link and a predetermined number of contiguous frames that may be transmitted over the link. As an initial point, very little can be said of Nishimura’s disclosure in this regard, because Nishimura itself says very little in this regard:

“A bandwidth assignment table 202 is provided instead of the channel status table 28 of FIG. 5. All processors are accessible to bandwidth assignment table 202 to update its contents whenever a packet is sent or received. An alarm detector 208 is responsive to the fault alarm

signal from interface 20 to update the status of paths in the bandwidth assignment table 202 the detail of which is shown in FIG. 19. This table is similar to the channel status table of FIG. 3 except that logical channel entries are replaced with path entries. As shown in FIG. 18, CONTROL packet used in this embodiment differs from that of FIG. 15 in that it replaces the Z-field with a required bandwidth field.” (Nishimura; Col. 17, ll. 28-40)

Applicants respectfully submit that neither the function of the link nor a predetermined number of contiguous frames that may be transmitted over the link are shown, taught or suggested by Fig. 19 of Nishimura, the above passage from Nishimura, nor, insofar as Applicants are able to discern, any other portion of Nishimura.

The Office Action fails to establish the presence of these limitations in Suzuki or Nishimura, alone or in combination. As will be appreciated, the burden to support a case of obviousness must be carried by the Office Action, including whether the prior art references teach or suggest all of the claim limitations. *See* MPEP 706.02(j). For the reasons presented above, neither Suzuki nor Nishimura, alone or in combination, allow the Office Action to successfully carry this burden.

For at least the foregoing reasons, Applicants respectfully submit that the Office Action fails to present a *prima facie* case of obviousness with regard to claims 13, 17, and 27, and all claims dependent upon them, and that they are in condition for allowance. Applicants therefore request the Examiner’s reconsideration of the rejections to those claims.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to Deposit Account 502306.

Respectfully submitted,

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